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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,822	12/10/2003	Joseph Zelvin	10276-085001	6791

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EXAMINER
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SANDERS JR, JOHN R

ART UNIT	PAPER NUMBER
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3735

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/732,822

Applicant(s)

ZELVIN ET AL.

Examiner

John R. Sanders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43,60 and 61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-43,60 and 61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/31/06</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-43 and 60-61 have been considered but are moot in view of the new ground(s) of rejection.
2. In response to applicant's argument that Shipp (U.S. Pat. 5,471,237) is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Shipp teaches a stereo filter for creating stereoscopic images and is readably applicable to any imaging art, since the nature of the stereo filter does not limit its use solely in endoscopes. As a teaching of how a stereo filter can be applied to produce stereoscopic images, Shipp is considered analogous art.
3. Examiner's assertions of official notice and/or common knowledge or well-known in the art statements made in the prior Action are hereinafter taken to be admitted prior art because Applicant either failed to traverse the Examiner's assertion of official notice or that the traverse was inadequate. See MPEP § 2144.03 (c). The assertions are reproduced below.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 6-8, 11-14, 19-21, 24-26, 28, 38 and 60-61 are rejected** under 35 U.S.C.

103(a) as being unpatentable over U.S. Publication No. 2003/0208125 A1 to Watkins (“Watkins”) in view of U.S. Patent No. 6,065,837 to Goldfain et al (“Goldfain”).

6. Re claims 1, 14, 28, 38 and 60: Watkins discloses a fundus camera for imaging the retina of the eye comprising a light source (Fig. 5, ref. 80 or 85); optics (along illumination axis 74) which receive light from the light source and which transmit the light through the eye to illuminate the retina; and an imaging device (camera 66) which receives imaging rays from the retina, wherein the imaging rays exit the eye along a second axis (imaging axis 68) that is separate and different from the first axis (see paragraph [0080]). Watkins expressly discloses this arrangement results in less reflections of the light source being incident on the camera. The illumination axis disclosed by Watkins is capable of being rotated (see Fig. 1).

7. Watkins does not expressly disclose that the optics produce a substantially convergent beam and that said beam diverges following penetration of the lens of the eye.

8. Goldfain teaches an ophthalmoscope indicative of a general arrangement of optical elements designed to project a convergent light beam to the eye such that the light beam diverges upon passing through the eye and impinging upon the retina, thereby diffusely illuminating the retina for the purpose of imaging the fundus. Goldfain expressly teaches the light beam converging at the cornea of the eye (col. 5, lines 2-8) and diverging following penetration of the lens (see Figs. 2, 4) and also discloses that with a smaller angle of illumination, light rays can be directed through the pupil over a greater range of cornea-to-objective lens distances (col. 6, lines 23-36). One of ordinary skill in the art would appreciate that the apparatus of Goldfain would be capable of projecting light into the eye such that the light converges at the crystalline lens of the

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eye instead of at the cornea, based upon the distance at which the eye is disposed to the apparatus (see FIG. 2) and given that Goldfain teaches narrowing the illumination angle.

9. At the time of the invention, one of ordinary skill in the art would have found it obvious to modify the optics disclosed by Watkins to create a beam that converges and then diverges following penetration of the lens, as taught by Goldfain, at least in order to enable a large amount of light to enter a small pupil.

10. Re claims 6, 7, 19, 20: Watkins in view of Goldfain teaches the above limitations but does not expressly teach the means for narrowing the illumination angle. However, the arrangement of optical components (lenses, series of apertures) is within the knowledge of one of ordinary skill in the art such that, given that Goldfain discloses narrowing the illumination angle (col. 6, lines 23-36), one of ordinary skill in the art would be able to, without undue experimentation, arrive at an arrangement of optical components, each used for their art-recognized purpose, for which the illumination angle is sufficiently reduced upon projection into the eye.

11. Re claims 8, 11, 12, 21, 24, 25: Watkins in view of Goldfain does not expressly teach a housing for the disclosed ophthalmoscope, nor a housing for the illumination source optics, nor rilling or diffusion surfaces on the interior of said housings. However, if not inherent to an ophthalmoscope, housings for such a device, including housings designed to reduce unwanted internal reflection would have been obvious to one of ordinary skill in the art as desirable for any optical device for the express purpose of decreasing interference from outside light or unwanted internal reflection.

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12. Re claims 13 and 26: Watkins in view of Goldfain teaches replacing the light source with a light pipe (col. 7, lines 42-53). Though not expressly disclosed, one of ordinary skill in the art would be apprised that multicolored LEDs are common light source expedients in the art and as such it would have been obvious to one of ordinary skill in the art to modify Watkins in view of Goldfain to include multicolored LEDs.

13. Re claim 61: Watkins in view of Goldfain does not expressly teach video imaging. However, Official Notice is taken that video imaging is a common expedient in the art and as such one of ordinary skill in the art would find it obvious to modify Watkins in view of Goldfain to take video images of the retina, since Watkins in view of Goldfain teaches retinal imaging and video imaging is a common expedient in the art.

14. **Claims 4, 5, 17 and 18 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Watkins in view of Goldfain as applied to claims 1 and 14 above, and further in view of U.S. Patent No. 4,453,808 to Takahashi ("Takahashi").

15. Watkins in view of Goldfain teaches features designed to reduce glare created from unwanted corneal reflections (Goldfain: col. 7, lines 7-41) but does not expressly teach an aperture for blocking said reflections. Takahashi teaches a confocal aperture 12 disposed to block the light reflected from the cornea (col. 4, lines 18-23). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Watkins in view of Goldfain to include an aperture for the express purpose of blocking unwanted corneal reflection during imaging, as taught by Takahashi.

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16. **Claims 9, 10, 22, 23 and 39-41 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Watkins in view of Goldfain as applied to claims 1 and 14 above, and further in view of 5,471,237 to Shipp (“Shipp”).

17. Watkins in view of Goldfain teaches stereoscopic imaging of the retina (Goldfain: Fig. 6) but does not expressly disclose a stereo filter. Shipp clearly teaches the use of stereo optics for producing left and right optical zones. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Watkins in view of Goldfain to include a stereo filter as taught by Shipp, in order to obtain stereo images of the retina.

18. **Claims 2, 3, 15, 16 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Watkins in view of Goldfain as applied to claims 1 and 14 above, and further in view of U.S. Patent No. 3,984,157 to LeVantine (“LeVantine”).

19. Watkins in view of Goldfain does not expressly teach a light trap for absorbing excess illumination directed away from the eye via a beam splitter. LeVantine teaches an ophthalmoscope with a light trap (fig. 2). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Watkins in view of Goldfain to include a light trap in order to absorb excess light not used for illuminating the retina, as taught by LeVantine.

20. **Claims 27-30 and 33-36 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Watkins in view of Goldfain, and further in view of Takahashi and Shipp.

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21. Re claims 27-28: Watkins in view of Goldfain teaches a separate illumination axis and imaging axis as previously discussed with respect to claims 1 and 14 above but does not expressly teach an aperture to reduce corneal reflections or a stereo filter for stereoscopic imaging. Takahashi teaches a confocal aperture 12 disposed to block the light reflected from the cornea (col. 4, lines 18-23). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Goldfain to include an aperture for the express purpose of blocking unwanted corneal reflection during imaging as taught by Takahashi. Watkins in view of Goldfain teaches stereoscopic imaging of the retina but does not expressly teach a stereo filter. Shipp clearly teaches the use of stereo optics for producing left and right optical zones that one of ordinary skill in the art would have found obvious to implement in the device of Watkins in view of Goldfain, in order to obtain stereo images of the retina.

22. Re claims 29 and 30: Watkins in view of Goldfain does not expressly teach a slit lamp base. However, Official Notice is taken that such bases are common expedients the art for supporting and disposing optical systems in front of the eye.

23. Re claim 33: Watkins in view of Goldfain teaches the above limitations but does not expressly disclose a series of apertures in the illumination path. However, the arrangement of optical components (lenses, series of apertures) is within the knowledge of one of ordinary skill in the art such that, given the disclosure of Goldfain, one of ordinary skill in the art would be able to, without undue experimentation, arrive at an arrangement of optical components, each used for their art-recognized purpose, for which the illumination angle is sufficiently reduced upon projection into the eye.



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24. Re claims 34-36: Watkins in view of Goldfain does not expressly teach rilling on the interior of said housings or different colored diodes. However, if not inherent to an ophthalmoscope, housings for such a device, including housings designed to reduce unwanted internal reflection (such as housing with rilling) would have been obvious to one of ordinary skill in the art as desirable for any optical device for the express purpose of decreasing interference from outside light or unwanted internal reflection. Also, though not expressly disclosed, one of ordinary skill in the art would be apprised that multicolored LEDs are common light source expedients in the art and as such it would have been obvious to one of ordinary skill in the art to modify Watkins in view of Goldfain and further in view of Takahashi and Shipp to include multicolored LEDs.

25. **Claims 31-32 and 37 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Watkins in view of Goldfain and further in view of Takahashi and Shipp as applied to claim 28 above, and further in view of LeVantine.

26. Watkins in view of Goldfain and further in view of Takahashi and Shipp does not expressly teach a light trap. LeVantine teaches an ophthalmoscope with a light trap (fig. 2). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Watkins in view of Goldfain and further in view of Takahashi and Shipp to include a light trap in order to absorb excess light not used for illuminating the retina, as taught by LeVantine.

***Conclusion***

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

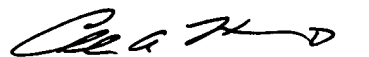
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Sanders whose telephone number is (571) 272-4742. The examiner can normally be reached on M-F 10:00 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jrs  
28 August 2006  
Charles A Manner, II  
SPE, Art Unit 3735